



IFWO

## RAW SEQUENCE LISTING

DATE: 10/07/2004

PATENT APPLICATION: US/10/777,131A

TIME: 13:52:24

Input Set : A:\23560090.app

Output Set: N:\CRF4\10072004\J777131A.raw

3 <110> APPLICANT: GICQUEL, BRIGITTE  
 5 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR DETECTING MULTIDRUG  
 6 RESISTANT STRAINS OF M. TUBERCULOSIS HAVING MUTATIONS  
 7 IN GENES OF THE mutT FAMILY  
 9 <130> FILE REFERENCE: 02356.0090-00000  
 11 <140> CURRENT APPLICATION NUMBER: 10/777,131A  
 12 <141> CURRENT FILING DATE: 2004-02-13  
 14 <150> PRIOR APPLICATION NUMBER: PCT/EP02/09679  
 15 <151> PRIOR FILING DATE: 2002-08-14  
 17 <150> PRIOR APPLICATION NUMBER: 60/311,824  
 18 <151> PRIOR FILING DATE: 2001-08-14  
 20 <150> PRIOR APPLICATION NUMBER: 60/313,523  
 21 <151> PRIOR FILING DATE: 2001-08-21  
 23 <160> NUMBER OF SEQ ID NOS: 32  
 25 <170> SOFTWARE: PatentIn Ver. 3.2  
 27 <210> SEQ ID NO: 1  
 28 <211> LENGTH: 21  
 29 <212> TYPE: DNA  
 30 <213> ORGANISM: Artificial Sequence  
 32 <220> FEATURE:  
 33 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer  
 35 <400> SEQUENCE: 1  
 36 tccggatgat gatttacctc c 21  
 39 <210> SEQ ID NO: 2  
 40 <211> LENGTH: 17  
 41 <212> TYPE: DNA  
 42 <213> ORGANISM: Artificial Sequence  
 44 <220> FEATURE:  
 45 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer  
 47 <400> SEQUENCE: 2  
 48 tccgccgggt cggggac 17  
 51 <210> SEQ ID NO: 3  
 52 <211> LENGTH: 20  
 53 <212> TYPE: DNA  
 54 <213> ORGANISM: Artificial Sequence  
 56 <220> FEATURE:  
 57 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer  
 59 <400> SEQUENCE: 3  
 60 tcgaaggtgg gcaaatcgtg 20  
 63 <210> SEQ ID NO: 4  
 64 <211> LENGTH: 19  
 65 <212> TYPE: DNA  
 66 <213> ORGANISM: Artificial Sequence

## RAW SEQUENCE LISTING

DATE: 10/07/2004

PATENT APPLICATION: US/10/777,131A

TIME: 13:52:24

Input Set : A:\23560090.app

Output Set: N:\CRF4\10072004\J777131A.raw

```

68 <220> FEATURE:
69 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
71 <400> SEQUENCE: 4
72 tgggggttcgc tggaagtgg 19
75 <210> SEQ ID NO: 5
76 <211> LENGTH: 17
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial Sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
83 <400> SEQUENCE: 5
84 agccgcgtag gtaacct 17
87 <210> SEQ ID NO: 6
88 <211> LENGTH: 17
89 <212> TYPE: DNA
90 <213> ORGANISM: Artificial Sequence
92 <220> FEATURE:
93 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
95 <400> SEQUENCE: 6
96 tgctcgagca tccgcag 17
99 <210> SEQ ID NO: 7
100 <211> LENGTH: 17
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
107 <400> SEQUENCE: 7
108 cagcgctcgc tggcgcc 17
111 <210> SEQ ID NO: 8
112 <211> LENGTH: 17
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
119 <400> SEQUENCE: 8
120 gactcagccg ctcgcga 17
123 <210> SEQ ID NO: 9
124 <211> LENGTH: 20
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial Sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
131 <400> SEQUENCE: 9
132 ccggcgacga atcgctcgtt 20
135 <210> SEQ ID NO: 10
136 <211> LENGTH: 20
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 10/07/2004

PATENT APPLICATION: US/10/777,131A

TIME: 13:52:24

Input Set : A:\23560090.app

Output Set: N:\CRF4\10072004\J777131A.raw

```

141 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
143 <400> SEQUENCE: 10
144 agctgggaca gtcgtcgagg                20
147 <210> SEQ ID NO: 11
148 <211> LENGTH: 20
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
155 <400> SEQUENCE: 11
156 tacggtcggc gagctgatcc                20
159 <210> SEQ ID NO: 12
160 <211> LENGTH: 19
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
167 <400> SEQUENCE: 12
168 tacggcggtt cgatgaacc                19
171 <210> SEQ ID NO: 13
172 <211> LENGTH: 21
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
179 <400> SEQUENCE: 13
180 gagagtttga tcttggtca g                21
183 <210> SEQ ID NO: 14
184 <211> LENGTH: 20
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
191 <400> SEQUENCE: 14
192 tgcacacagg ccacaaggga                20
195 <210> SEQ ID NO: 15
196 <211> LENGTH: 18
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer
203 <400> SEQUENCE: 15
204 ggccgacaaa cagaacgt                18
207 <210> SEQ ID NO: 16
208 <211> LENGTH: 18
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic primer

```

## RAW SEQUENCE LISTING

DATE: 10/07/2004

PATENT APPLICATION: US/10/777,131A

TIME: 13:52:24

Input Set : A:\23560090.app

Output Set: N:\CRF4\10072004\J777131A.raw

```

215 <400> SEQUENCE: 16
216 gttcaccaac tgggtgac 18
219 <210> SEQ ID NO: 17
220 <211> LENGTH: 2488
221 <212> TYPE: DNA
222 <213> ORGANISM: Mycobacterium tuberculosis
224 <400> SEQUENCE: 17
225 ttggtcaaca agttcgaggg ggacgcgtcg ctaaccatct tcggcgcccc gaaccggctt 60
226 ccctgtcccc aagacaaggc actggccgcc gcgcgggcga tagccgatcg gctgggtcaac 120
227 gaaatgcccc agtgccaggc cgggatcggc gtggcgggcg ggcaggtcat tgccggcaac 180
228 gtgggtgccc gagaacggtt cgagtacacc gtgatcgggg agccgggtcaa cgaggcggcc 240
229 cgattgtgcg aactggccaa atcgcgctccc ggcaagttgc tggcttcggc acaggccgtg 300
230 gacgccgcaa gcgaagagga gcgcgcccgt tggctcttgg gtaggcattg gaaacttcgt 360
231 gggcacgacc aaccggctcg gctggccaa cgggtcgggc tgaccaagcc gcgtaggtaa 420
232 cctgcccga cccacgacga ccccatcaca atgtcgtttt tccgccagtc atgtcggtgg 480
233 gcgggtgtaa ttgttgagg gtgcacgacg acttcgaacg ctgctaccgg gcgatccagt 540
234 ccaaagacgc ccggttcgac ggctgggtcg tcgtcgcggt tttgaccacc ggtgtctact 600
235 gccggccgag ttgcccgcgc cggccaccgt tcgcgcgcaa tgcccggttc ctgccgactg 660
236 cggcgccgcg tcagggggag ggattccggg cctgcaaacg gtgccgcccc gacgcctcgc 720
237 ctgggtctcc ggaatggaat gtgcgtagtg acgtcgtggc gcgggcgatg cggctgattg 780
238 ccgacggaac ggtggaccgc gacggtgtca gcgcctcgc ggcccagtc ggttacacca 840
239 ttcgccagct ggagcggctg ttgcaggccg tggtcggcgc cggtcgctc gcgttgccc 900
240 gcgcccacg catgcagacc gcccggtgc tgatcgagac cacgaacctg ccgttcggcg 960
241 atgtcgcat cgccgcggg tttccagca tccgtcagtt caacgacacc gttcgccctg 1020
242 cgtgcgacg cacaccgacg gcattgcgtg cgcgcggcgc cgcgcgattc gagtctgcca 1080
243 ccgcatcagc gggcacggtg tcgctgcggc taccgcctcg tgcaccattc gccttcgagg 1140
244 gtgttttcgc ccacttgccc gccaccgcgg tcgcgggttg cgaagaggtc cgcgatggtg 1200
245 cgtaccgacg cagctacgg ctcccatggg gcaacggcat cgtcagcctg acgccggcac 1260
246 ccgatcatgt gcgctgcctg cttgtgctcg atgatttcg cgacctgatg acggccactg 1320
247 cagtttgccg acggctgctg gacctcagc ccgatccga agcgatcgtc gaggcgctgg 1380
248 gcgccgatcc ggatctgcgc gcagtgggtg gcaaggcacc cgggcaacgc attcccgcga 1440
249 cagtcgacga ggcagaattc gccgtgcggg cggctcctcg ccaacaggta tcgacgaagg 1500
250 ccgcaagcac tcacgcgggc cgaactggtc ccgcctacgg acggccggtc cacgatcgcc 1560
251 acggcgcttt gaccacaccc ttcccgtcga tcgagcagct cgctgagatc gatcccggcc 1620
252 atctggccgt ccccaaggcg cgtcaaaggc ccataaacgc gctcgtcgcc agccttgccg 1680
253 acaaaagtct ggtcctggac gccggatgtg actggcaacg cgcgcggggg cagttgctag 1740
254 cgctgccccg agtgggcccc tggaccgcgg aggtcatcgc catgcggcgc ctcggtgacc 1800
255 cggacgcctt tccggccagt gatctcgcc tcgggctggc cgccaaaag ctgggcctgc 1860
256 ctgcacaacg acgagccctg acggtgcaca gcgctcgctg gcgcctctgg cgtcctatg 1920
257 ccaccagca cctgtggacc acctggaac atccggtaa ccaatggcca ccgcaggaga 1980
258 agatcgcatg attcactacc gcaccatcga tagcccatc gggccattaa ccctggccgg 2040
259 gcatggctcg gtgttgacga acctgcggat gctcgagcag acgtatgagc caagccgcac 2100
260 aactggaca cccgacccc gcgcattttc tggcgctgtc gaccaactca acgcttattt 2160
261 cgcggcgag ctcaccgaat tcgatgtgga acttgacctc cggggaaccg actttcagca 2220
262 acgagtatgg aaagcattgc tgacaatccc gtacggggaa acccggtcct acggggaaat 2280
263 cgcggaccag atcggcgccc ccggcgccgc acgcgcgtg ggattggcca acggccacaa 2340
264 tcccatcgcc atcatcgctc cgtgccaccg cgtgatcggc gccagcgga agctcaccgg 2400
265 gtacggcggt ggaatcaacc ggaacgagc tctgctcgag ttggagaaaa gccgggcgcc 2460
266 cgcgacttg acgctcttcg actgagcg 2488

```

## RAW SEQUENCE LISTING

DATE: 10/07/2004

PATENT APPLICATION: US/10/777,131A

TIME: 13:52:24

Input Set : A:\23560090.app

Output Set: N:\CRF4\10072004\J777131A.raw

269 &lt;210&gt; SEQ ID NO: 18

270 &lt;211&gt; LENGTH: 895

271 &lt;212&gt; TYPE: DNA

272 &lt;213&gt; ORGANISM: Mycobacterium tuberculosis

274 &lt;400&gt; SEQUENCE: 18

```

275 ggcctcgggtg acccgagcgc ctttcgggcc agtgatctcg gcctgcgggt ggccgcca 60
276 aagctggggc tgcctgcaca acgacgagcc ctgacgggtg acagcgctcg ctggcgcccc 120
277 tggcgctcct atgccaccca gcacctgtgg accaccctgg aacatccggg aaaccaatgg 180
278 ccaccgcagg agaagatcgc atgattcact accgcacat cgatagcccc atcgggccat 240
279 taaccctggc cgggcatggc tcgggtgtga cgaacctgcg gatgctcgag cagacgtatg 300
280 agccaagccg cacacactgg acaccgacc ccggcgcat ttctggcgct gtcgaccaac 360
281 tcaacgctta tttcgccggc gagctcaccg aattcgatgt ggaacttgac ctccggggaa 420
282 ccgactttca gcaacgagta tggaaagcat tgctgacaat cccgtacggg gaaaccgggt 480
283 cctacgggga aatcgccgac cagatcgggc ccccgccgc cgacgcgcc gtgggattgg 540
284 ccaacggcca caatcccat gccatcatcg tcccgcgcca ccgctgatc ggcgccagcg 600
285 gaaagctcac cgggtacggc ggtggaatca accgaaacg agctctgctc gagttggaga 660
286 aaagccgggc gcccgagac ttgacgctct tcgactgagc gccccgccc gcgaggggat 720
287 cgtcattgcg aaaatcgaag ccataattcg cccgctcgcg agcggctgag tcgatataaa 780
288 catacaaaaa caccaccgtt accgggggtg tttttgtat ttccggcggtg tcctactttt 840
289 ccaccgggag gggcagtatc atcggcgctg gcaggcttag cttccgggtt cggaa 895

```

292 &lt;210&gt; SEQ ID NO: 19

293 &lt;211&gt; LENGTH: 823

294 &lt;212&gt; TYPE: DNA

295 &lt;213&gt; ORGANISM: Mycobacterium tuberculosis

297 &lt;400&gt; SEQUENCE: 19

```

298 gatgtccgga tgatgattta cctcctcggc tcgctcggcc acccgcgcta cggcgctgat 60
299 accggccata aacgtcgga acttgattga cctacgcagg acaccaccgg cgcgctgcca 120
300 gccgttgagg tcgtgcagtg cggcgctgac ctgctcatcc gttaacacag ccatacctcg 180
301 acggtatacc gtcacaggtc atgctgaatc agatcggtgt tgccggagcc atcgcccgcg 240
302 gttgcacggc cttggtggcg caacgcgttc ggccaccgga gttggcgggt cgttgggaac 300
303 ttcccgccgg taaggtcgcc gccggcgaaa ccgagcgcc cgcgctggcc cgagagctcg 360
304 ccgaagaact gggactcgag gtcgcccacc tcgcggtggg cgaccgtgtg ggcgacgata 420
305 ttgcttgtaa cggcacgacg acgctgcggg cctatcgct gcactgtctt ggcggcgaa 480
306 cgcgtgcgcg tgaccaccgg gcgctgtgct gggtagcggc ggccgaactg cacgatgtcg 540
307 actgggtacc agccgaccgc ggetggattg cggacctggc gcgaaccctc aacgggtccg 600
308 ccgcatgtgt ccaccgtcg tgtaggaaa ccgacgggtt ggttgacggg ggcgcccgtc 660
309 aacttggtta gaacaacgtg aaaaaacgtt aacttgggtt tgcagccc tagcgattac 720
310 gatggttttc tggacgcgtg gcgacaact ccgggcagga cgctgacgcc catccatcga 780
311 gataccgat gttgacgaga ggggtccccg accggcgga ccg 823

```

314 &lt;210&gt; SEQ ID NO: 20

315 &lt;211&gt; LENGTH: 1144

316 &lt;212&gt; TYPE: DNA

317 &lt;213&gt; ORGANISM: Mycobacterium tuberculosis

319 &lt;400&gt; SEQUENCE: 20

```

320 tgctcgctcga aggtgggcaa atcgctgcgc cccgacacag cgacttctgt gatagatgtg 60
321 actggcgcca ctcaattggt cagcgcggt cgctgcacc gccccgctcc ctgccaac 120
322 gaataagtcc tggccgacga tggcgctca gacggcgagt acatcgggaa caccgccc 180
323 taccagctac tatcgctggg gtgtccgacg gcgaacaagc caaatcacgt cgacgccc 240
324 ggcggcgccg cggcgcgccg gctgcggcta cagccgagaa tcacatggac gccaaccgg 300

```

**VERIFICATION SUMMARY**

DATE: 10/07/2004

PATENT APPLICATION: US/10/777,131A

TIME: 13:52:25

Input Set : A:\23560090.app

Output Set: N:\CRF4\10072004\J777131A.raw